

## A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl<sup>7</sup> B65G25/08, 67/02, B65D88/12, 90/02

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl<sup>7</sup> B65G25/08, 67/02, B65D88/12, 90/02

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Jitsuyo Shinan Koho 1922-1996 Toroku Jitsuyo Shinan Koho 1994-2004

Kokai Jitsuyo Shinan Koho 1971-2004 Jitsuyo Shinan Toroku Koho 1996-2004

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages  | Relevant to claim No.              |
|-----------|---|------------------------------------|
| Y<br>A    | JP 3062568 B2 (Yugen Kaisha Koshiji Kinzoku),<br>10 July, 2000 (10.07.00),<br>Par. Nos. [0013] to [0024]; Figs. 1 to 18<br>(Family: none)     | 7, 8, 12-14<br>1-6, 9-11,<br>15-19 |
| Y<br>A    | JP 2002-114290 A (Yugen Kaisha Koshiji Kinzoku),<br>16 April, 2002 (16.04.02),<br>Par. Nos. [0022] to [0057]; Figs. 1 to 12<br>(Family: none) | 7, 8, 12-14<br>1-6, 9-11,<br>15-19 |
| A         | JP 2000-335749 A (Yugen Kaisha Ginan Shatai<br>Kogyo),<br>05 December, 2000 (05.12.00),<br>Figs. 3, 4<br>(Family: none)                       | 1-6                                |

☒ Further documents are listed in the continuation of Box C.
 ☐ See patent family annex.

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|---|--|
| * Special categories of cited documents:  | "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention  |
| "A" document defining the general state of the art which is not considered to be of particular relevance  | "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone   |
| "E" earlier document but published on or after the international filing date  | "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art |
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| "O" document referring to an oral disclosure, use, exhibition or other means  |  |
| "P" document published prior to the international filing date but later than the priority date claimed  |  |

Date of the actual completion of the international search  
27 January, 2004 (27.01.04)Date of mailing of the international search report  
10 February, 2004 (10.02.04)Name and mailing address of the ISA/  
Japanese Patent Office

Authorized officer

Facsimile No.

Telephone No.

## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages  | Relevant to claim No. |
|-----------|---|-----------------------|
| Y         | JP 57-163680 A (Mitsuo HAYASHI),<br>07 October, 1982 (07.10.82),<br>Page 2, upper right column, lines 12 to 19<br>(Family: none)  | 7,8                   |
| Y         | JP 5-270664 A (Daiwa Sangyo Kabushiki Kaisha),<br>19 October, 1993 (19.10.93),<br>Fig. 1<br>(Family: none)                        | 12,13                 |
| Y         | JP 2000-355426 A (Idemitsu Petrochemical Co.,<br>Ltd.),<br>26 December, 2000 (26.12.00),<br>Figs. 2 to 4<br>(Family: none)        | 14                    |
| E,A       | JP 2003-63298 A (Yugen Kaisha Koji Shokai),<br>05 March, 2003 (05.03.03),<br>Par. Nos. [0037] to [0040]; Fig. 3<br>(Family: none) | 17-19                 |